COUNTIS AT / ATi

F Notice d'utilisation **GB** Operating instructions
D Bedienungsanleitung **NL** Gebruiksaanwijzing
I Istruzioni per l'uso **SP** Instrucciones de servicio
P Manual de instruções

SOCOMEC

F

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OPÉRATIONS PRÉALABLES

Pour la sécurité du personnel et du matériel, il est impératif de bien s'imprégner du contenu de cette notice avant la mise en service.
Au moment de la réception du colis, il est nécessaire de vérifier les points suivants :

- l'emballage est en bon état,
- le produit n'a pas eu de dommage pendant le transport,
- la référence de l'appareil est conforme à la commande ;
- l'emballage comprend le produit ainsi qu'une notice d'utilisation.

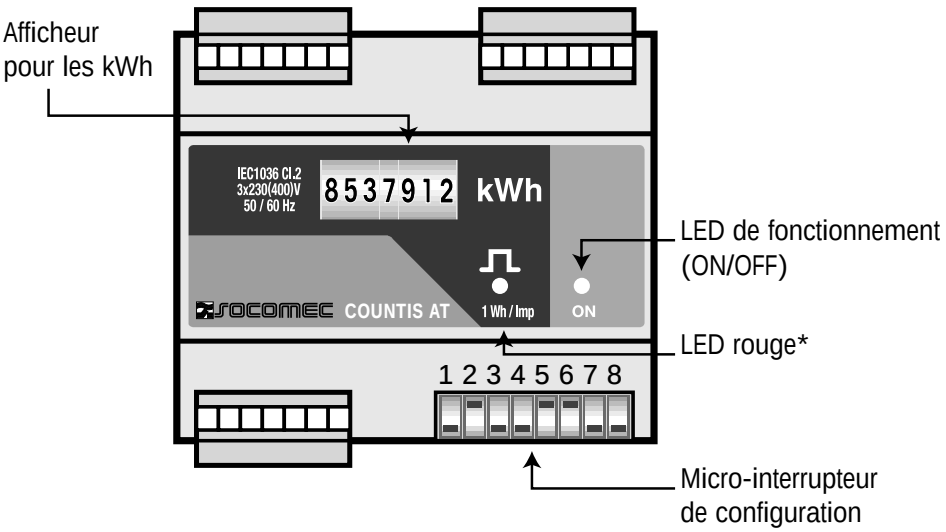
INFORMATIONS GÉNÉRALES

Le système COUNTIS est composé de produits assurant le comptage de l'énergie pour des réseaux électriques BT 3 ou 4 fils équilibré ou non. Ce système est composé de 2 produits :

- **L'AT :** compteur d'énergie Active Triphasé **non isolé** ne permettant pas le raccordement du secondaire des TC à la terre
- **L'ATi :** compteur d'énergie Active Triphasé **isolé** permettant le raccordement du secondaire des TC à la terre.

Ces produits sont entièrement configurables (rapport de TC, type de réseau et poids de la sortie impulsions) et permettent, à partir d'un afficheur de 7 digits, de visualiser directement la consommation en kWh. Ils sont équipés en standard d'une sortie impulsions (2 en option).

PRÉSENTATION



* clignote ou éteinte : énergie (1 Wh/imp)
allumée : mauvais raccordement du secondaire des TC ou inversion tension/courant

INSTALLATION

Le COUNTIS s'installe sur un rail DIN EN 50022 (DIN 43880).

ENVIRONNEMENT CLIMATIQUE

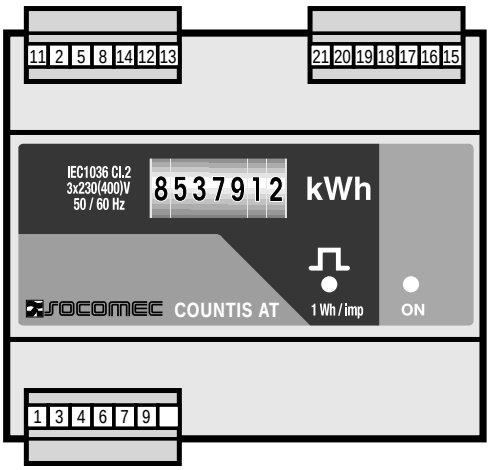
Pour garantir un fonctionnement optimal, il est recommandé d'utiliser cet appareil de -10 à + 60°C avec une humidité relative comprise entre 20 et 95%.

Nota :
Il existe un ensemble de fixations permettant d'installer de COUNTIS en façade d'armoire.
Merci de nous consulter.

RACCORDEMENT

Il est composé de 3 borniers fixes (6 mm^2).

Recommandations :
Installer à une distance d'au moins 30 cm d'un appareil de coupure (interrupteur, contacteur, …).
Eviter la proximité avec des systèmes générateurs de perturbations électromagnétiques.
Eviter les vibrations comportant des accélérations supérieures à 1 G pour des fréquences inférieures à 60 Hz.



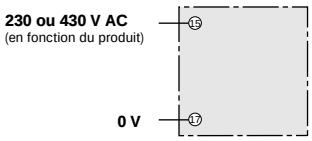
Nota :
Le couple de serrage minimum pour le bornier fixe est de 0,8 Nm.

CONSIGNES DE SÉCURITÉ (U, I, F)

Recommandation :
Nous conseillons de protéger l'alimentation auxiliaire et les entrées tension à partir de fusibles de 0,5 A.

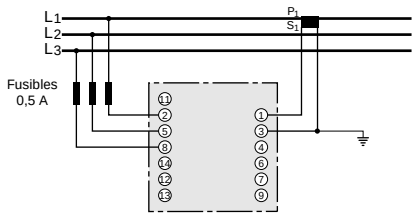
Pour éviter toutes détériorations de l'appareil, il est nécessaire, avant de le raccorder, de veiller à respecter :
- les indications sur le boîtier,
- la tension d'alimentation : 230 ou 400 V AC avec une tolérance de ± 15%,
- la fréquence du réseau 50 ou 60 Hz,
- une tension maximale permanente aux bornes des entrées tension de 500 V AC phase/phase ou de 289 V AC entre Phase/neutre,
- un courant maximal permanent de 7 A (raccordement à partir de transformateur(s) de courant).

ALIMENTATION AUXILIAIRE

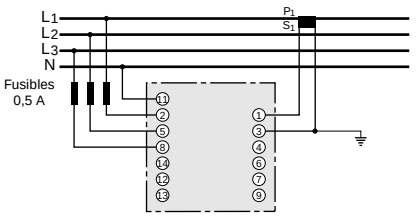


RÉSEAU (Raccordement à la terre des TC, uniquement pour l'ATi)

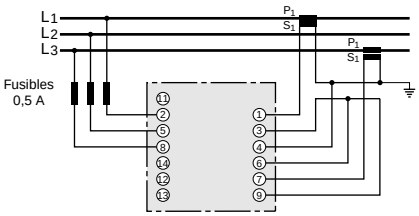
3 FILS AVEC 1 TC (3 FE)



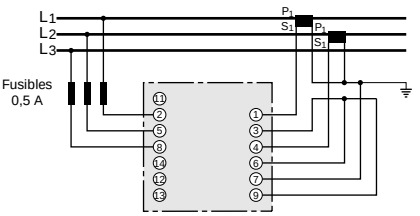
4 FILS AVEC 1 TC (4 FE)



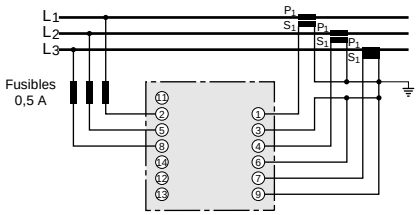
3 FILS AVEC 2 TC (3 FNE)



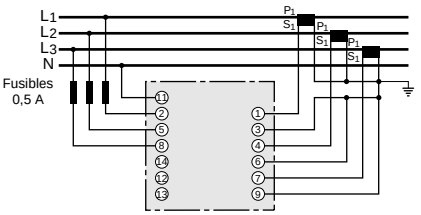
3 FILS AVEC 2 TC (3 FNE)



3 FILS AVEC 3 TC (3 FNE)

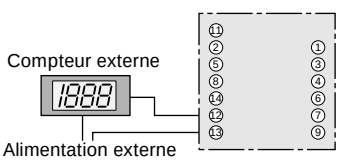


4 FILS AVEC 3 TC (4 FNE)



SORTIE À ÉMETTEUR D'IMPULSIONS

Option : 2e sortie bornes 20 et 21

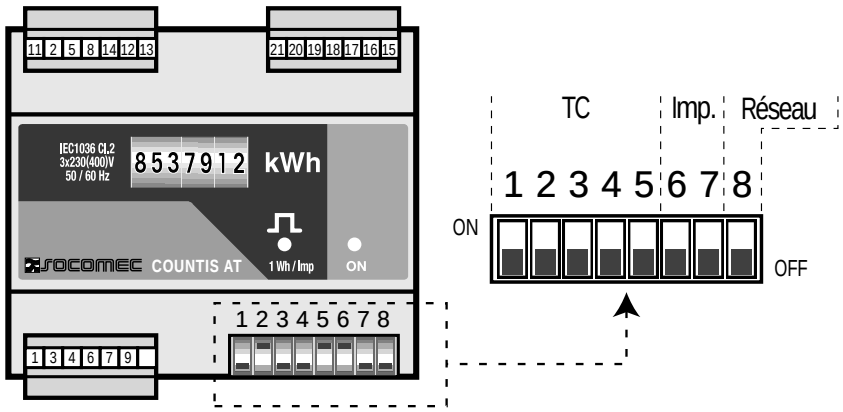


PROGRAMMATION ⚠ appareil hors tension

Pour exploiter correctement ce produit, il est indispensable de le configurer. Les micro-interrupteurs sont disposés sous un cache gris à soulever à l'aide d'un tournevis. La désignation de ces micro-interrupteurs est indiquée ci-dessous.

Note :
La prise en compte des paramètres se fait dès la mise sous tension.

Note :
Configuration d'usine :
1-2-3-4-5-8 = OFF
6-7 = ON



Poids d'impulsions

Poids	6	7
100 Wh	OFF	OFF
1 kWh	ON	OFF
10 kWh	OFF	ON
100 kWh	ON	ON

Types de réseau

Types	8
3 ou 4 FNE	OFF
3 ou 4 FE	ON

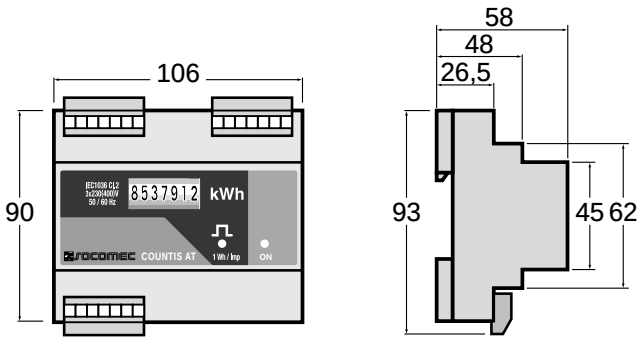
RAPPORT DE TC

Rapport de TC/5	1	2	3	4	5
10	OFF	OFF	OFF	OFF	OFF
20	ON	OFF	OFF	OFF	OFF
40	OFF	ON	OFF	OFF	OFF
50	ON	ON	OFF	OFF	OFF
60	OFF	OFF	ON	OFF	OFF
75	ON	OFF	ON	OFF	OFF
100	OFF	ON	ON	OFF	OFF
125	ON	ON	ON	OFF	OFF
150	OFF	OFF	OFF	ON	OFF
200	ON	OFF	OFF	ON	OFF
250	OFF	ON	OFF	ON	OFF
300	ON	ON	OFF	ON	OFF
400	OFF	OFF	ON	ON	OFF
500	ON	OFF	ON	ON	OFF
600	OFF	ON	ON	ON	OFF
750	ON	ON	ON	ON	OFF
800	OFF	OFF	OFF	OFF	ON
1000	ON	OFF	OFF	OFF	ON
1200	OFF	ON	OFF	OFF	ON
1250	ON	ON	OFF	OFF	ON
1500	OFF	OFF	ON	OFF	ON
1750	ON	OFF	ON	OFF	ON
2000	OFF	ON	ON	OFF	ON
2500	ON	ON	ON	OFF	ON
3000	OFF	OFF	OFF	ON	ON
4000	ON	OFF	OFF	ON	ON

CARACTÉRISTIQUES TECHNIQUES

BOÎTIER

Raccordement : à partir de borniers fixes de 0,5 à 6 mm²
Poids : 300 g



FACE AVANT

Afficheur :
- totalisateur à rouleaux de 7 segments de 0 à 9 999 999 kWh
- précision : ± 1 Digit

LED rouge (énergie ou raccordement des TC)
et verte (ON) de diamètre 5 mm
Indice de protection : IP 54.

RÉSEAU

3 ou 4 fils équilibré ou non.

ENTRÉES COURANT

A partir de transformateur avec un :
- primaire configurable par micro-interrupteurs : 10 - 20 ... – 4000 A
- secondaire : 5 A (1 A sur demande)

Consommation des entrées : ≤ 0,4 VA
Etendue de mesure : 1 A à 4800 A
Surcharge :
- permanente : 7 A
- intermittente : 10 A pendant 1 seconde

ENTRÉES TENSION

Etendue de mesure :
- entre phase : 90 à 500 V AC
- entre phase et neutre : 51 à 289 V AC

Surcharge permanente : 289 V AC (phase/neutre)

CARACTÉRISTIQUES TECHNIQUES (suite)

PRÉCISION

Energie active : CEI 1036 en classe 1 pour l'ATi et en classe 2 pour l'AT

ALIMENTATION AUXILIAIRE

230 V ou 400 V AC, 50/60 Hz
Tolérance : ± 15 %
Consommation : 4 VA

SORTIE IMPULSIONS

Relais reed 1 T (100 V DC - 0,5 A - 10 VA)
Durée d'impulsions : 100 ms
Nombre de manœuvres : 100 x 10^6 minimum
Poids d'impulsions programmable par micro-interrupteurs : 100 Wh / 1 kWh / 10 kWh / 100 kWh
2e sortie impulsions (option) :
• raccordée en parallèle sur la première
• indépendante de la première (sur demande)

ISOLATION GALVANIQUE

Alimentation auxiliaire : 2,5 kV AC pendant 1 minute
Entrées courant : 2,5 kV AC pendant 1 minute
Sortie impulsions : 2,5 kV AC pendant 1 minute

CONDITIONS D'UTILISATION

Température de fonctionnement : -10 à +60°C
Température de stockage : -20 à +70°C
Humidité relative : 95%

NORMES

Relative à la précision sur l'énergie active :
• CEI 1036 en classe 1 pour l'ATi et en classe 2 pour l'AT
Relative au marquage CE :
• EN 50081-2
• EN 50082-2
• CEI 1000-4-2/3-4-5-6-8-11
Relative aux conditions d'utilisation :
• CEI 68-2-11/30

PRELIMINARY OPERATIONS

For personnel and product safety please read the contents of these operating instructions carefully.
Check the following points as soon as you receive the package:

- the packing is in good condition,
- the product has not been damaged during transit,
- the product reference number conforms to your order,
- the package contains the product as well as the operating instructions.

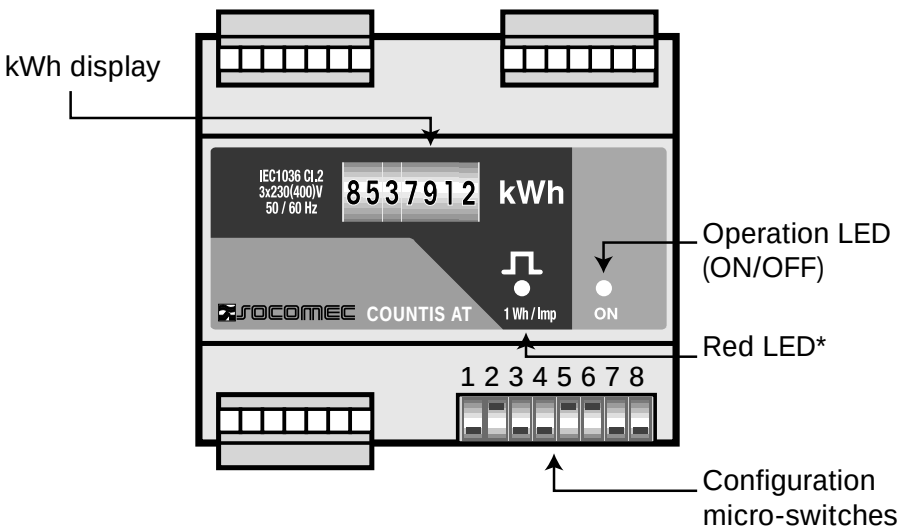
GENERAL INFORMATIONS

The COUNTIS System comprises energy metering products for balanced or non-balanced 3- or 4-wire network. This system comprises two products:

- **AT: a non-insulated** three-phase active energy-meter, which does not allow earthing CT of secondary (class 2).
- **ATi: an Insulated** three-phase active energy meter, which allows earthing CT of secondary (class 1 IEC 1036).

These products are completely configurable (CT radio, network type and pulse output value) and have a 7-digit display which allows direct display of consumption in kWh. They are equipped with a pulse output as standard (2 as an option).

PRESENTATION



* flashing or off: energy (1 Wh/pulse)
on: bad connection of CT secondary
or voltage/current correspondance reversal

INSTALLATION

The COUNTIS can be installed on a DIN EN 50022 rail (DIN 43880).

Note:
A mounting kit is available for installing the COUNTIS on the front of cabinets. Please contact us for further information.

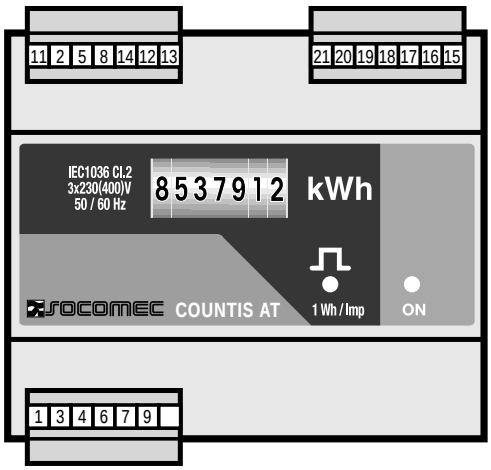
CLIMATIC ENVIRONMENT

To guarantee optimum operation, it is recommended that this device is used between -10 to +60°C with a relative humidity of between 20 and 95%.

Recommendations:
Install at a minimum distance of 30 cm from a disconnection device (switch, contactor, etc.).
Avoid installing near systems which generate electromagnetic interference.
Avoid vibrations with acceleration of over 1 G for frequencies below 60 Hz.

CONNECTION

Connection by 3 fixed terminals (6 mm^2).



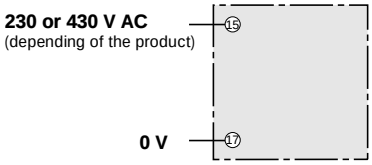
Note:
The minimum torque for the fixed terminal is 0.8 Nm.

Recommendation:
We recommend that the auxiliary voltage and the voltage inputs should be protected with 0.5 A fuses.

SAFETY INSTRUCTIONS (U, I, F)

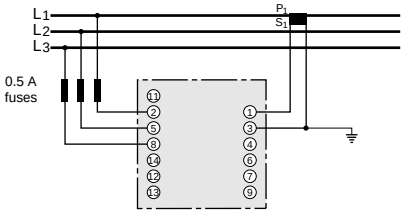
To avoid damaging the device, take care to observe the following before connecting the device:
- indications on the casing,
- supply voltage: 230 or 400 V AC ± 15%,
- network frequency: 50 or 60 Hz,
- maximum permanent voltage at voltage input terminals of 500 V AC phase/phase or 289 V AC between phase/neutral,
- maximum permanent current of 7 A (connection from current transformer(s).

AUXILIARY POWER SUPPLY

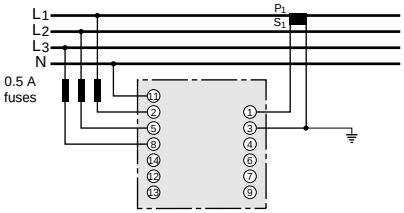


NETWORK (CT earthing, for the ATi only)

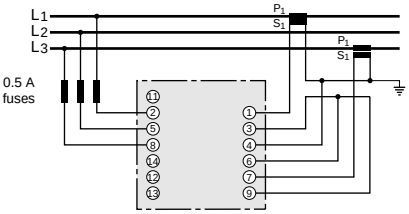
3 WIRE WITH 1 CT



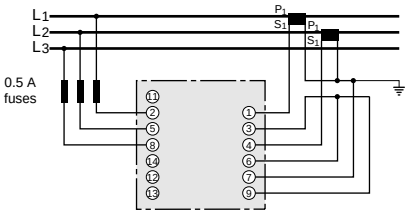
4 WIRE WITH 1 CT



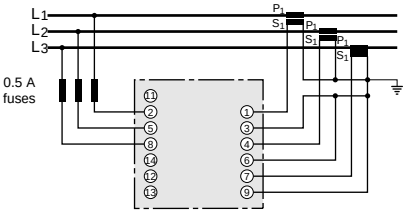
3 WIRE WITH 2 CT



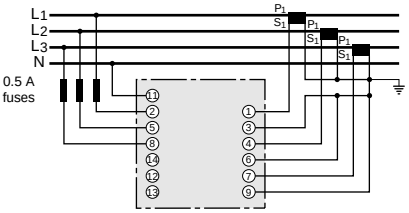
3 WIRE WITH 2 CT



3 WIRE WITH 3 CT

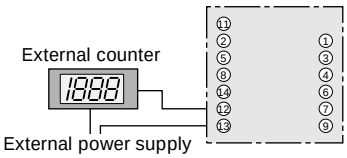


4 WIRE WITH 3 CT



PULSE TRANSMITTER OUTPUT

Optional: 2nd output terminals 20 and 21



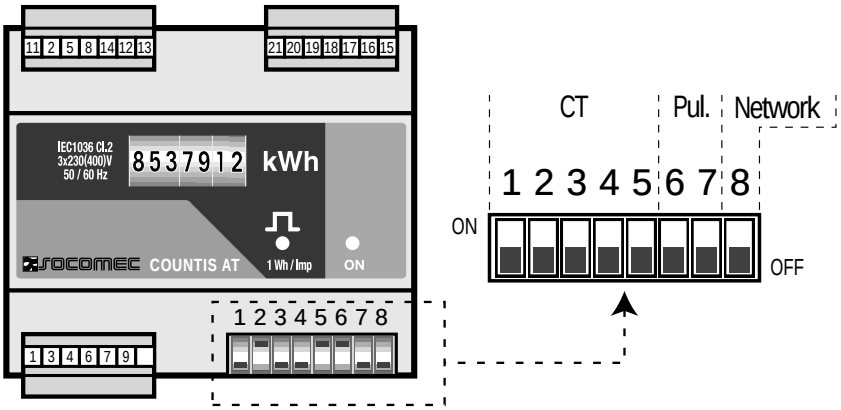
PROGRAMMING

⚠ Off load

In order to operate this product correctly, it must be configured. The micro-switches are arranged beneath a grey cover which is removed using a screw-driver. The assignment of the micro-switches is shown below.

Note :
Parameter are taken into account when the instrument is powered

Note:
Factory configuration:
1-2-3-4-5-8 = OFF
6-7 = ON



Pulse values:

Value	6	7
100 Wh	OFF	OFF
1 kWh	ON	OFF
10 kWh	OFF	ON
100 kWh	ON	ON

Network types

Types	8
Unbalanced 3 or 4 wires	OFF
Balanced 3 or 4 wires	ON

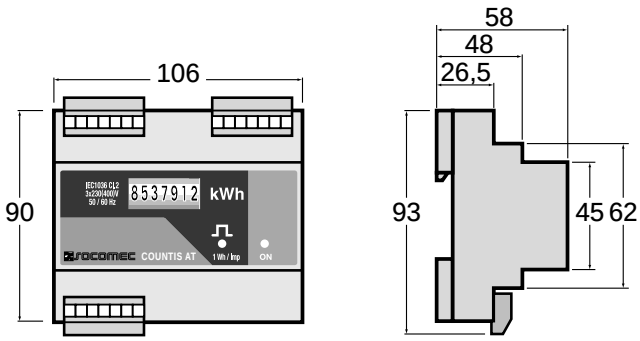
CT RATIO

CT/5 ratio	1	2	3	4	5
10	OFF	OFF	OFF	OFF	OFF
20	ON	OFF	OFF	OFF	OFF
40	OFF	ON	OFF	OFF	OFF
50	ON	ON	OFF	OFF	OFF
60	OFF	OFF	ON	OFF	OFF
75	ON	OFF	ON	OFF	OFF
100	OFF	ON	ON	OFF	OFF
125	ON	ON	ON	OFF	OFF
150	OFF	OFF	OFF	ON	OFF
200	ON	OFF	OFF	ON	OFF
250	OFF	ON	OFF	ON	OFF
300	ON	ON	OFF	ON	OFF
400	OFF	OFF	ON	ON	OFF
500	ON	OFF	ON	ON	OFF
600	OFF	ON	ON	ON	OFF
750	ON	ON	ON	ON	OFF
800	OFF	OFF	OFF	OFF	ON
1000	ON	OFF	OFF	OFF	ON
1200	OFF	ON	OFF	OFF	ON
1250	ON	ON	OFF	OFF	ON
1500	OFF	OFF	ON	OFF	ON
1750	ON	OFF	ON	OFF	ON
2000	OFF	ON	ON	OFF	ON
2500	ON	ON	ON	OFF	ON
3000	OFF	OFF	OFF	ON	ON
4000	ON	OFF	OFF	ON	ON

TECHNICAL CHARACTERISTICS

PHYSICAL

Connection: by 0.5 to 6 mm² fixed terminals.
Weight: 300 g



FRONT PANEL

Display:
- 7 digits electromechanical
  0 to 9 999 999 kWh
- accuracy: ± 1 Digit

5-mm diameter red (energy or CT connection)
and green LEDs (ON/OFF)
Protection index: IP 54.

NETWORK

Balanced or unbalanced 3 or 4 wire.

CURRENT INPUTS

From transformer with:
- micro-switches configurable primary:
  10 - 20 … - 4000 A
- secondary: 5 A (1 A on request)

Consumption: ≤ 0,4 VA
Measurement range: 1 A to 4800 A
Overload:
- permanent: 7 A
- intermittent: 10 A for 1 second

VOLTAGE INPUTS

Measurement range:
- between phases: 90 to 500 V AC
- between phase and neutral:
  51 to 289 V AC

Permanent overload: 289 V AC (phase/neutral)

TECHNICAL CHARACTERISTICS

ACCURACY

Active energy: IEC 1036, class 1 for the ATi and class 2 for the AT

AUXILIARY POWER SUPPLY

230 V or 400 V AC, 50/60 Hz
Tolerance: ± 15 %
Consumption: 4 VA

PULSE OUTPUT

1 T reed relay (100 V DC - 0.5 A - 10 VA)
Pulse time: 100 ms
Number of manipulations:
100 x 10^6 minimum
Micro-switch programmable pulse value:
100 Wh / 1 kWh / 10 kWh / 100 kWh
2^{nd} pulse output (optional):
• connected in parallel to the first
• independent from the first

GALVANIC INSULATION

Auxiliary power supply: 2.5 kV AC
for 1 minute
Current inputs: 2.5 kV AC
for 1 minute
Pulse output: 2.5 kV AC
for 1 minute

OPERATING CONDITIONS

Operating temperature: -10 to +60°C
Storage temperature: -20 to +70°C
Relative humidity: 95%

STANDARDS

Active energy accuracy:
• IEC 1036, class 1 for the ATi and class 2 for the AT
CE marking:
• EN 50081-2
• EN 50082-2
• CEI 1000-4-2/3-4-5-6-8-11
Operating conditions:
• CEI 68-2-11/30

VORAUSGEHENDE KONTROLLEN

Für die Sicherheit von Personen und Anlagen lesen Sie dieses Handbuch aufmerksam durch, bevor das Gerät in Betrieb genommen wird.
Bei Empfang des Gerätes muß folgendes überprüft werden:

- Zustand der Verpackung,
- Sind Transportschäden zu melden?
- Entspricht der Packungsinhalt Ihrer Bestellung?
- Die Verpackung enthählt das Gerät und eine Bedienungsanleitung.

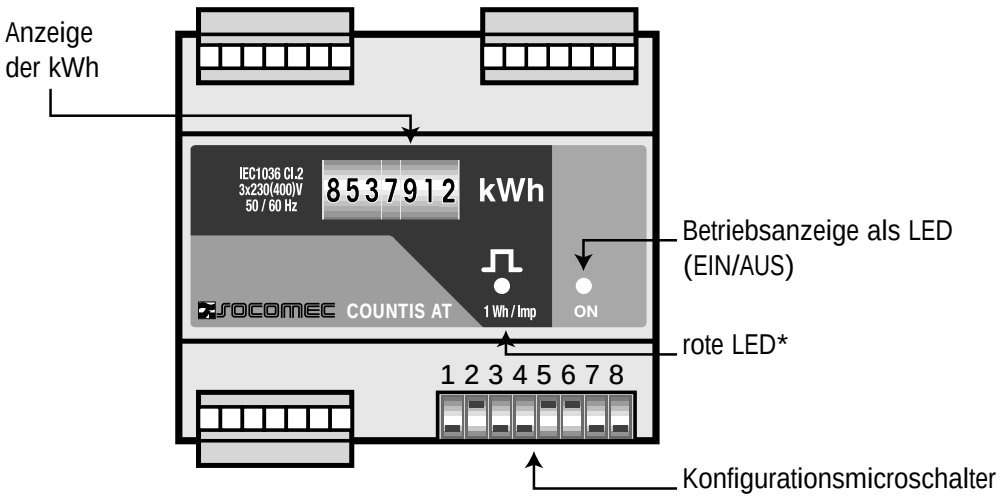
ALLGEMEINE HINWEISE

Das COUNTIS-System besteht aus Produkten, die es ermöglichen die Energie von gleich oder ungleich belasteten elektrischen NS-Netzen zu zählen.
Es besteht aus zwei Typen:

- **Der AT: nicht isolierter** aktiv Dreiphasen-Energiezähler, der es nicht gestattet, die Sekundärseite des Stromwandlers an Erde anzuschließen
- **Der ATi: isolierter aktiv** Dreiphasen-Energiezähler, der es gestattet, die Sekundärseite des Stromwandlers an Erde anzuschließen.

Diese Produkte sind vollständig konfigurierbar (Stromwandlerverhältnis, Netztyp und Gewichtung des Impulsausgangs) und erlaubt es, anhand einer Anzeige mit 7 Digit den Energieverbrauch in kWh abzulesen. Sie sind standardmäßig mit einem Impulsausgang bestückt (2 Impulsausgänge optional).

PRODUKTDARSTELLUNG



* blinkt oder aus: Energie (1Wh/imp)
an: schlechter Anschluß der Stromwandler
oder Vertauschung Spannung / Strom

INSTALLATION

Das COUNTIS wird auf einer DIN-Schiene befestigt (EN 50022 DIN 43880).

KLIMATISCHE BEDINGUNGEN

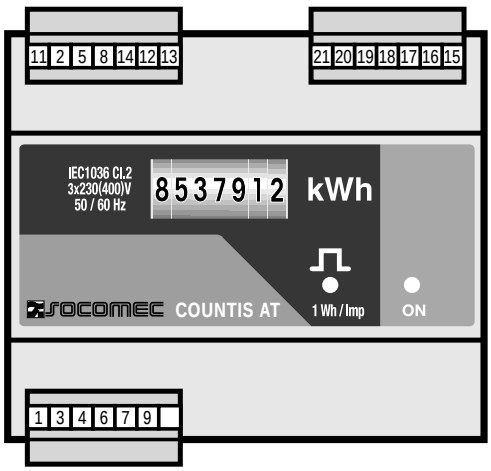
Um eine optimale Funktionsweise zu gewährleisten empfehlen wir dieses Gerät bei -10°C bis +60°C bei einer relativen Luftfeuchtigkeit zwischen 20% und 95% zu betreiben.

Anmerkung:
Es gibt eine Vorrichtung, die es ermöglicht das COUNTIS an der Front des Schrankes anzubringen.
Bitte anfragen.

ANSCHLÜSSE

Er besteht aus drei festen Anschlußklemmleisten (6 mm^2).

Empfehlung:
Installation des Gerätes mit einem Mindestabstand von 30 cm zu einem Schaltgerät (Schalter, Schütz…).
Vermeiden Sie die Nähe von Systemen, die elektromagnetische Störungen erzeugen können.
Vermeiden Sie Vibrationen mit Beschleunigungen größer 1G bei Frequenzen kleiner 60Hz.



Hinweis:
Das maximale Anzugsmoment für die Anschlußklemmen beträgt 0,8Nm.

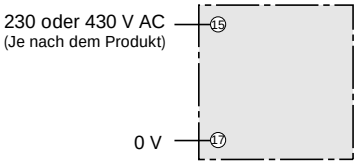
Empfehlung:
Wir empfehlen einen Schutz der externen Versorgung und den Spannungseingängen mit einer Sicherung von 0,5 A.

SICHERHEITSHINWEIS (U, I, F)

Um jegliche Beschädigung des Gerätes vor dem Anschließen zu vermeiden, beachten Sie bitte folgendes:

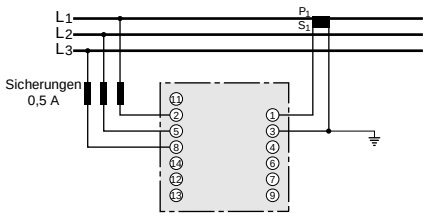
- die Angaben auf dem Gehäuse
- die Spannungsversorgung: 230 oder 400 V AC mit einer Toleranz von ±15%
- Netzfrequenz: 50 oder 60 Hz
- Eine Dauerwechselspannung an den Spannungseingängen von 500 V AC Phase/Phase oder 289 V AC zwischen Phase und Null
- ein Maximaldauerstrom von 7A (Anschluß ausgehend vom Stromwandlerausgang).

HILFSSPANNUNG

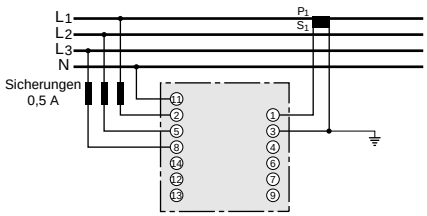


NETZ (Erdanschluß des Stromwandlers nur für ATi)

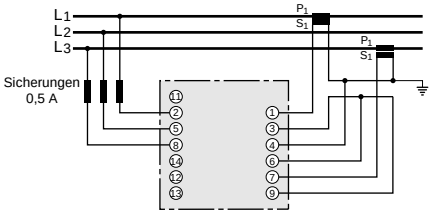
3 LEITER MIT 1 STROMWANDLER



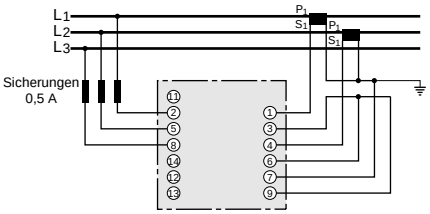
4 LEITER MIT 1 STROMWANDLER



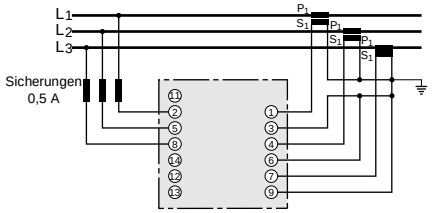
3 LEITER MIT 2 STROMWANDLERN



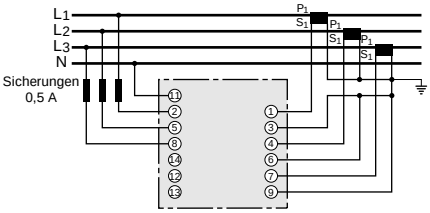
3 LEITER MIT 2 STROMWANDLERN



3 LEITER MIT 3 STROMWANDLERN

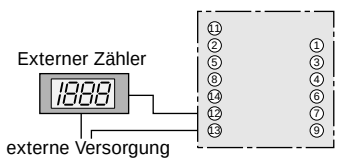


4 LEITER MIT 3 STROMWANDLERN



IMPULSAUSGANG

Option: 2ter Ausgang an den Anschlußklemmen 20 und 21

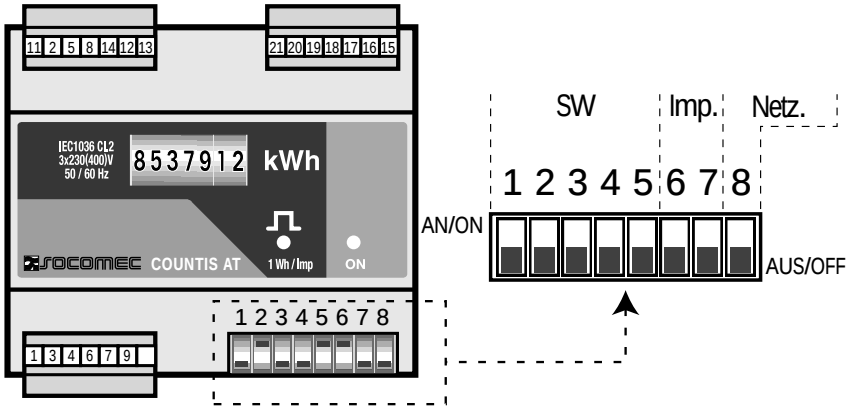


PROGRAMMIERUNG ⚠ Spannungslos

Voraussetzung für einen einwandfreien Betrieb ist die Konfiguration.
Die Microschalter befinden sich unter einer grauen Abdeckung.
Die Funktionen der einzelnen Microschalter wird nachfolgend beschrieben.

Hinweis:
Die Berücksichtigung der Parameter wird am Speisespannung von Countis durchgeführt.

Hinweis:
Werkseinstellung:
1-2-3-4-5-8 = aus
6-7 = an



Impulseinheit

Einheit	6	7
100 Wh	aus	aus
1 kWh	an	aus
10 kWh	aus	an
100 kWh	an	an

Netzart

Art	8
3 oder 4 Leiter ungleich belastet	aus
3 oder 4 Leiter gleich belastet	an

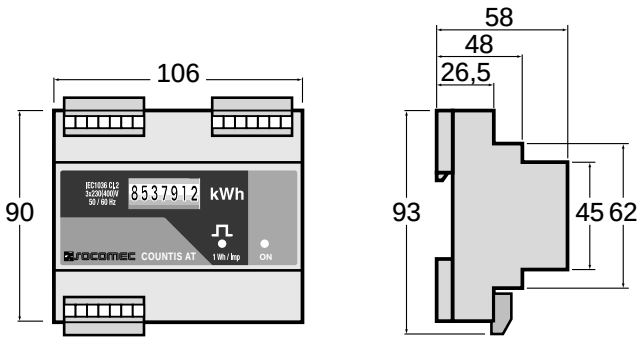
STROMWANDLERVERHÄLTNIS

Stromwandlerverhältnis SW/5	1	2	3	4	5
10	aus	aus	aus	aus	aus
20	an	aus	aus	aus	aus
40	aus	an	aus	aus	aus
50	an	an	aus	aus	aus
60	aus	aus	an	aus	aus
75	an	aus	an	aus	aus
100	aus	an	an	aus	aus
125	an	an	an	aus	aus
150	aus	aus	aus	an	aus
200	an	aus	aus	an	aus
250	aus	an	aus	an	aus
300	an	an	aus	an	aus
400	aus	aus	an	an	aus
500	an	aus	an	an	aus
600	aus	an	an	an	aus
750	an	an	an	an	aus
800	aus	aus	aus	aus	an
1000	an	aus	aus	aus	an
1200	aus	an	aus	aus	an
1250	an	an	aus	aus	an
1500	aus	aus	an	aus	an
1750	an	aus	an	aus	an
2000	aus	an	an	aus	an
2500	an	an	an	aus	an
3000	aus	aus	aus	an	an
4000	an	aus	aus	an	an

TECHNISCHE DATEN

GEHÄUSE

Anschlüsse: ausgehend von einer festen Anschlußklemme von 0,5 bis 6 mm²
Gewicht: 300g



VORDERSEITE

Anzeige:
• Zählwerk mit 7 Segmenten
• Genauigkeit: ± 1 Digit
rote (Energie oder Anschluß der Stromwandler)
und grüne LED (AN) mit 5 mm Durchmesser
Schutzgrad: IP54

NETZ

3 oder 4 Leiternetz gleich oder ungleich belastet.

STROMEINGÄNGE

Ausgehend von einem Stromwandler, mit
• primär über Microschalter konfigurierbar: 10-20…-4000A
• sekundär: 5A (1A auf Anfrage)
Eingangsverbrauch: ≤ 0,4VA
Meßbereich: 1A bis 4800A
Überlast:
• permanent: 7A
• kurzzeitig: 10A während 1 Sekunde

SPANNUNGSEINGÄNGE

Meßbereich:
• zwischen zwei Phasen: 90 bis 500 V AC
• zwischen Phase und Null: 51 bis 289 V AC
permanente Überlast: 289 V AC (Phase/Null)

TECHNISCHE DATEN (Fortsetzung)

GENAUIGKEIT

Wirkenergie: IEC 1036 Klasse 1 für ATi und Klasse 2 für AT

HILFSSPANNUNG

230 V oder 400 V AC, 50/60 Hz
Toleranz: ±15%
Verbrauch: 4 VA

IMPULSAUSGANG

Reedrelais 1T (100 VDC - 0,5 A - 10 VA)
Impulsdauer: 100 ms
Schaltspielanzahl: 100 x 10^6 minimum
Einheit pro Impuls durch Microschalter programmierbar: 100 Wh / 1 kWh / 10 kWh / 100 kWh
2ter Impulsausgang (optional):
- parallelgeschaltet zum ersten
- unabhängig zum ersten (auf Anfrage)

GALVANISCHE TRENNUNG

Hilfsspannung: 2,5 KV AC während 1 Minute
Stromeingang: 2,5 KV AC während 1 Minute
Impulsausgang: 2,5 KV AC während 1 Minute

ANWENDUNGSKONDITIONEN

Betriebstemperatur: -10°C bis +60°C
Lagerungtemperatur : -20°C bis +70°C
Feuchtigkeit: 95%

NORMEN

Relativ zur Genauigkeit der Wirkenergie:
- IEC 1036 in Klasse 1 für ATi und Klasse 2 für AT

Relativ zur CE-Markierung:
- EN 50081-2
- EN 50082-2
- IEC 1000-4-2/3-4-5-6-8-11

Relativ zur Betriebsbedingung
- IEC 68-2-11/30

VOORAFGAANDE HANDELINGEN

Voor de veiligheid van het personeel en het materiaal is het noodzakelijk om deze gebruiksaanwijzing grondig te lezen alvorens het product in bedrijf te stellen.
Bij ontvangst van het pakket dient u de volgende punten te checken:

- is de verpakking in goede staat?
- werd het product niet beschadigd tijdens het transport?
- stemt de referentie van het toestel overeen met de bestelling?
- bevat de verpakking het product en de gebruiksaanwijzing?

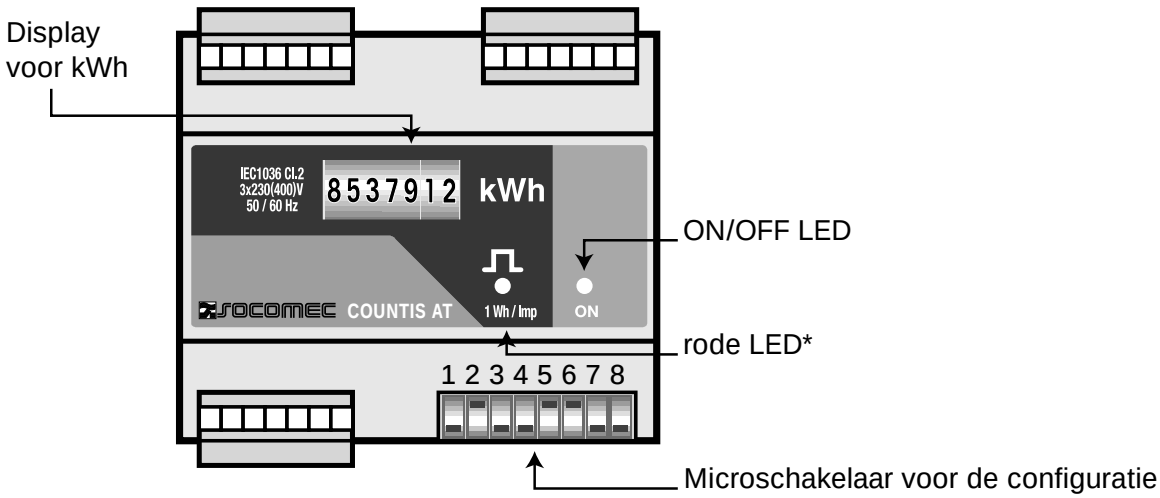
ALGEMENE INFORMATIE

Het COUNTIS systeem bestaat uit producten voor vermogensmeting voor BT elektriciteitsnetten met 3 of 4 draden.
Dit systeem bestaat uit 2 producten:

- **De AT:** meter van **niet geïsoleerd** Actief Driefase vermogen zonder mogelijkheid tot het aarden van de tweede TC.
- **De ATi:** meter van **geïsoleerd** Actief Driefase vermogen met mogelijkheid tot het aarden van de tweede TC.

Deze producten zijn volledig configureerbaar (TC-verhouding, netwerktype en waarde van de impulsuitgang) en bieden de mogelijkheid de kWh-consumptie direct in 7 digits zichtbaar te maken.
Ze zijn standaard uitgerust met een impulsuitgang (optioneel 2).

VOORSTELLING



* knippert of brandt niet: vermogen (1 Wh/imp)
brandt: slechte aansluiting van de secundaire TC
of omkering spanning/stroom

INSTALLATIE

De COUNTIS wordt geïnstalleerd op een rail DIN EN 50022 (DIN 43880)

OMGEVINGSTEMPERATUUR

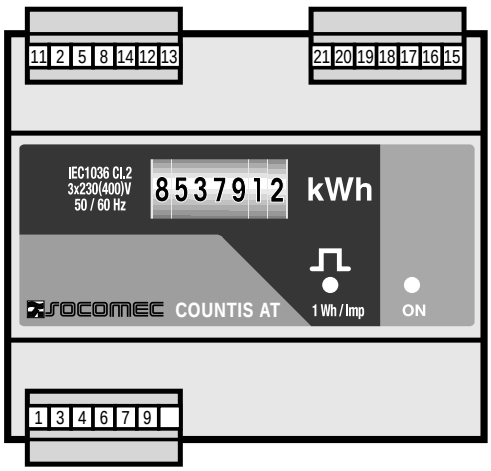
Om een optimale werking te garanderen is het aan te bevelen dit toestel te plaatsen in een omgeving tussen -10°C en +60°C met een relatieve vochtigheid tussen 20 en 95%.

N.B.:
Er bestaat een geheel van aansluitingen waarmee de COUNTIS in een frontkast kan worden geïnstalleerd.
Vraag inlichtingen.

AANSLUITING

Bestaat uit 3 vaste aansluitklemmen (6 mm^2)

Aanbevelingen:
Installeer het toestel op minstens 30 cm van een onderbreker (schakelaar, relais enz.).
Plaats het niet in de buurt van systemen die elektromagnetische storingen kunnen veroorzaken.
Stel het niet bloot aan trillingen met versnellingen hoger dan 1 G voor 60 Hz frequenties.



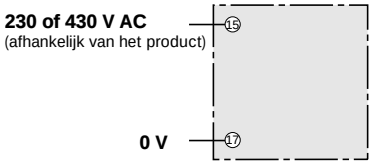
N.B.:
Het minimale aanhaalkoppel voor de aansluitklemmen bedraagt 0,8 Nm.

Aanbeveling:
Wij raden u aan de hulpvoeding en de spanningsingangen te beveiligen met zekeringen vanaf 0,5 A

VEILIGHEIDSVOORSCHRIFTEN (U,I,F)

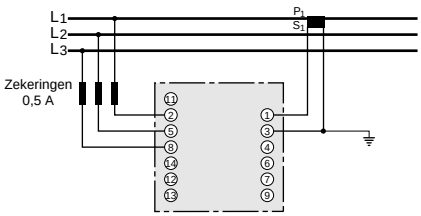
Om iedere beschadiging aan het toestel te voorkomen, moet u vòòr installatie de volgende punten in acht nemen:
- de op de doos vermelde aanwijzingen,
- voedingsspanning: 230 of 400 V AC met een tolerantie van ± 15%,
- netfrequentie: 50 of 60 Hz,
- maximale spanning op de ingangs-aansluitingen van 500 V AC fase/fase of 289 V AC tussen fase/neutraal,
- maximale permanente stroom van 7 A (aansluiting via transformator(en)

HULPVOEDING

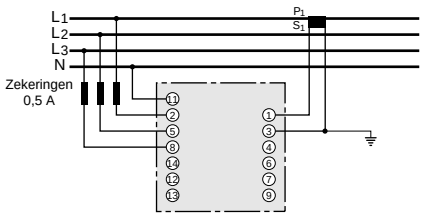


NET (Aansluiting aan de aarde van de TC, alleen voor de ATi)

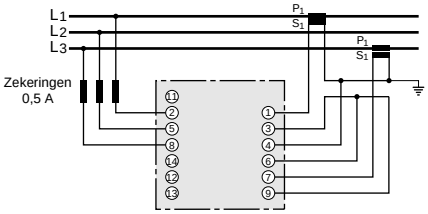
3 DRADEN MET 1 TC (3 FE)



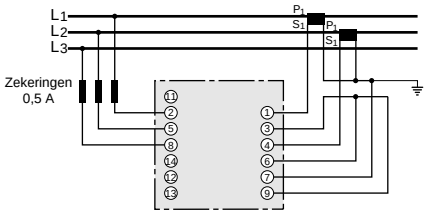
4 DRADEN MET 1 TC (4 FE)



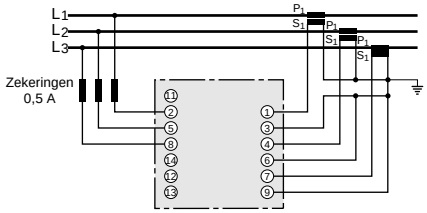
3 DRADEN MET 2 TC (3 FNE)



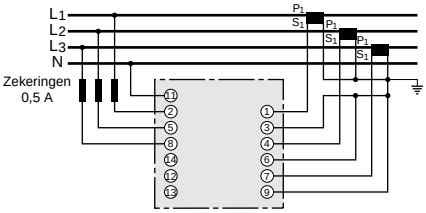
3 DRADEN MET 2 TC (3 FNE)



4 DRADEN MET 3 TC (3 FNE)

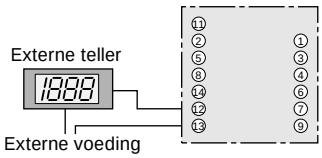


4 DRADEN MET 3 TC (4 FNE)



IMPULSUITGANG

Optie: 2de aansluituitgangen 20 en 21

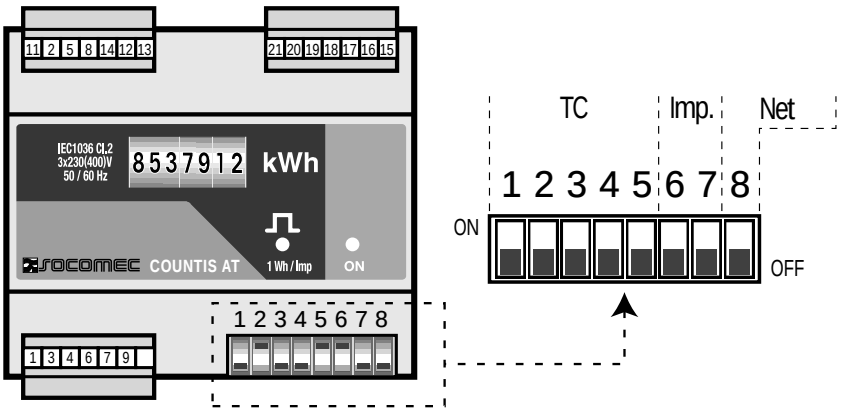


PROGRAMMEREN ⚠ Apparaat zonder spanning

Om dit product correct te gebruiken is het nodig het te configureren.
De microschakelaars bevinden zich onder een grijze afdekking die met een schroevendraaier kan worden opgelicht.
De betekenis van deze microschakelaars staat hieronder aangegeven.

N.B.:
De ingestelde parameters gelden onmiddellijk na inschakeling.

N.B.:
Fabriekskonfiguratie:
1-2-3-4-5-8 = OFF
6-7 = ON



Impulswaarde

Waarde	**6**	**7**
100 Wh	OFF	OFF
1 kWh	ON	OFF
10 kWh	OFF	ON
100 kWh	ON	ON

Nettypes

Types	**8**
3 of 4 FNE	OFF
3 of 4 FE	ON

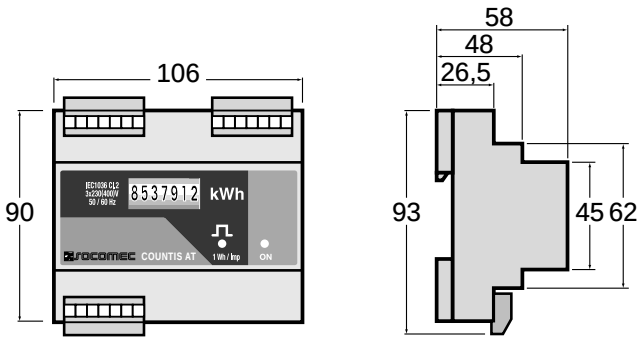
TC VERHOUDING

TC/5 verhouding	**1**	**2**	**3**	**4**	**5**
10	OFF	OFF	OFF	OFF	OFF
20	ON	OFF	OFF	OFF	OFF
40	OFF	ON	OFF	OFF	OFF
50	ON	ON	OFF	OFF	OFF
60	OFF	OFF	ON	OFF	OFF
75	ON	OFF	ON	OFF	OFF
100	OFF	ON	ON	OFF	OFF
125	ON	ON	ON	OFF	OFF
150	OFF	OFF	OFF	ON	OFF
200	ON	OFF	OFF	ON	OFF
250	OFF	ON	OFF	ON	OFF
300	ON	ON	OFF	ON	OFF
400	OFF	OFF	ON	ON	OFF
500	ON	OFF	ON	ON	OFF
600	OFF	ON	ON	ON	OFF
750	ON	ON	ON	ON	OFF
800	OFF	OFF	OFF	OFF	ON
1000	ON	OFF	OFF	OFF	ON
1200	OFF	ON	OFF	OFF	ON
1250	ON	ON	OFF	OFF	ON
1500	OFF	OFF	ON	OFF	ON
1750	ON	OFF	ON	OFF	ON
2000	OFF	ON	ON	OFF	ON
2500	ON	ON	ON	OFF	ON
3000	OFF	OFF	OFF	ON	ON
4000	ON	OFF	OFF	ON	ON

TECHNISCHE EIGENSCHAPPEN

DOOS

Verbinding: op vaste aansluitklemmen
0,5 tot 6 mm²
Gewicht: 300 gr



FRONT

Display
- totalisator met schijven met 7 segmenten van 0 tot 9 999 999 kWh
- precisie: ± 1 digit

Rode LED (vermogen of aansluiting van de TC)
en groene LED (ON) met diameter van 5 mm
Beschermingsindex: IP54

NET

3 of 4 draden, gebalanceerd of niet.

STROOMINGANGEN

Vanaf een stroomtransformator met een:
- primaire wikkeling configureerbaar met microschakelaars: 10 - 20 ... - 4000 A
- secundaire wikkeling: 5A (1A op aanvraag)

Ingangsverbruik: 2 0,4 VA
Meetbereik: 1 A tot 4800 A
Overbelasting:
- permanent: 7 A
- intermitterend: 10 A gedurende 1 seconde

SPANNINGSINGANGEN

Meetbereik:
- tussen fase: 90 tot 500 V AC
- tussen fase en neutraal: 51 tot 289 V AC

Permanente overbelasting: 289 V AC (fase /neutraal)

TECHNISCHE EIGENSCHAPPEN

NAUWKEURIGHEID

Actief vermogen: CEI 1036 in klasse 1 voor de ATi en in klasse 2 voor de AT

HULPVOEDING

230 V of 400 V AC, 50/60 Hz
Tolerantie: ± 15%
Consumptie: 4 VA

IMPULSUITGANG

Relais reed 1 T (100 V DC - 0,5 A - 10 VA)
Impulsduur: 100 ms
Aantal manoeuvres: 100 x 10^6 minimum
D.m.v. microschakelaars programmeerbare impulswaarden: 100 Wh / 1 kWh / 10 kWh / 100 kWh
Tweede impulsuitgang (optioneel)
- parallel op de eerste aangesloten
- onafhankelijk van de eerste (op aanvraag)

GALVANISCHE ISOLATIE

Hulpvoeding: 2,5 kV AC gedurende 1 minuut
Stroomingang: 2,5 kV AC gedurende 1 minuut
Impulsuitgang: 2,5 kV AC gedurende 1 minuut

GEBRUIKSVOORWAARDEN

Werkingstemperatuur: -10 tot +60°C
Opslagtemperatuur: -20 tot +70°C
Relatieve vochtigheid: 95%

NORMEN

M.b.t. de nauwkeurigheid op het actief vermogen:
- CEI 1036 klasse 1 voor de ATi en in klasse 2 voor AT

M.b.t. het CE-merk:
- EN 50081-2
- EN 50082-2
- CEI 1000-4-2/3-4-5-6-8-11

M.b.t. de gebruiksvoorwaarden:
- CEI 68-2-11/30

OPERAZIONI PRELIMINARI

Per la sicurezza delle persone e dei materiali, occorre leggere con la massima attenzione il contenuto delle presenti istruzioni prima della messa in servizio.
Alla consegna, vanno verificati i seguenti punti:

- Se l'imballaggio è in buono stato,
- Se il prodotto non ha subito danni durante il trasporto,
- Se il codice dell'apparecchio è conforme a quello dell'ordinazione,
- Se nell'imballaggio sono contenute le istruzioni corrispondenti all'apparecchio.

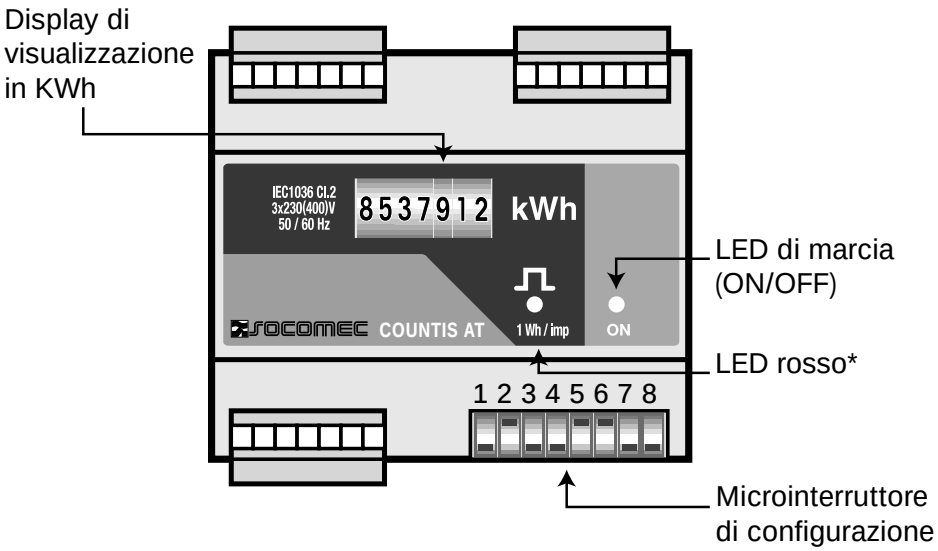
INFORMAZIONI GENERALI

Il sistema Countis é composto da vari apparecchi per il conteggio dell'energia di reti elettriche BT 3 o 4 fili, equilibrate o non equilibrate. Ê un sistema composto da 2 prodotti:

- **L'AT:** contatore di energia attiva trifase **non isolato** che non consente il raccordo alla terra del secondario fra i TA.
- **L'ATi:** contatore di energia attiva trifase **isolato** che consente il raccordo alla terra del secondario fra i TA.

Questi prodotti sono totalmente configurabili (portata del TA, tipo di rete e peso dell'uscita impulsi) e permettono, a partire da un visualizzatore a 7 digit, di verificare direttamente i consumi in KWh. Gli apparecchi sono forniti in formato standard di un'uscita impulsi (2 in opzione).

PRESENTAZIONE



* Lampeggiante o spento: energia (1 Wh/imp.)
Acceso: raccordo difettoso del secondario fra i TA, o inversione tensione/corrente

INSTALLAZIONE

Il COUNTIS va montato su una guida DIN EN 50022 (DIN 43880).

Nota:
Un insieme di accessori di montaggio permette di fissare il Countis sul pannello frontale dell'armadietto.
Si prega di richiedere informazioni.

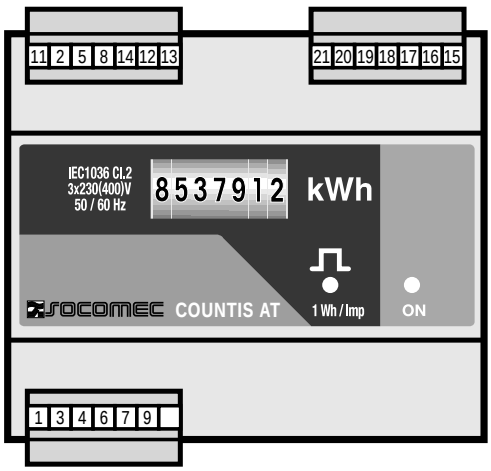
CONDIZIONI DI UTILIZZAZIONE

Per garantire un funzionamento ottimale, si raccomanda di utilizzare l'apparecchio ad una temperatura compresa tra -10 e +60°C con un tasso di umidità relativa compreso tra 20 e 85%.

Raccomandazioni:
Installare ad una distanza minima di 30 cm. da un apparecchio di interruzione (interruttore, contattore…).
Evitare la prossimità di sistemi che possano generare disturbi elettro-magnetici.
Non esporre gli apparecchi a vibrazioni che comportano accelerazioni superiori a 1G per frequenze inferiori a 60 Hz.

COLLEGAMENTO

È composto da 3 morsettiere fisse (6 mm^2).



Nota:
La coppia di serraggio minima per la morsettiera fissa é di 0,8 Nm.

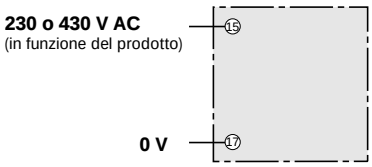
Raccomandazioni:
Si consiglia di proteggere l'alimentazione ausiliaria e gli ingressi tensione con fusibili da 0,5 A.

PRESCRIZIONI DI SICUREZZA (U.I.F.)

Per evitare qualsiasi danneggiamento all'apparecchio e prima di effettuare i collegamenti, rispettare scrupolosamente:

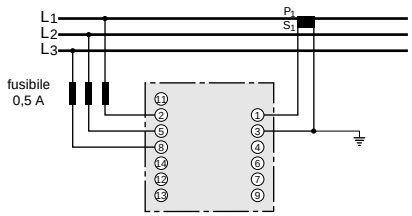
- le indicazioni di targa sulla scatola,
- la tensione di alimentazione: 230 o 400 V AC con tolleranza di ± 15%,
- la frequenza della rete 50 o 60 Hz,
- la tensione massima permanente ai morsetti degli ingressi, tensione di 500 V AC fase / fase o di 289 V AC tra fase / neutra,
- la corrente massima permanente di 7 A (collegamento a partire da trasformatore/i di corrente).

ALIMENTAZIONE AUSILIARIA

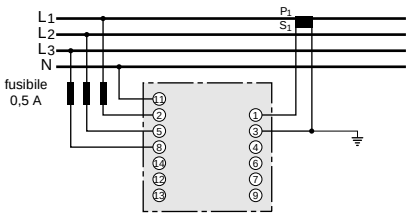


RETE (collegamento alla terra dei TA, soltanto per l'ATi)

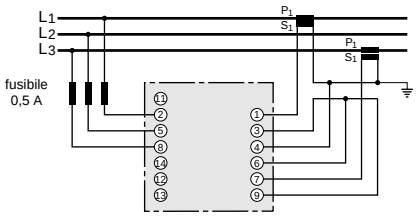
3 FILI CON 1 TC (FE)



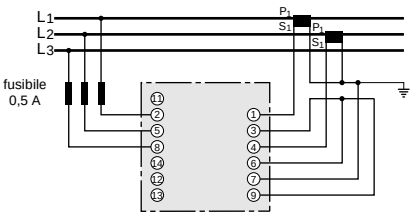
4 FILI CON 1 TC (4 FE)



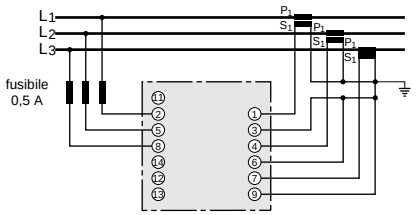
3 FILI CON 2 TC (3 FNE)



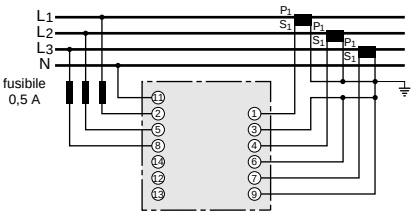
3 FILI CON 2 TC (3 FNE)



3 FILI CON 3 TC (3 FNE)

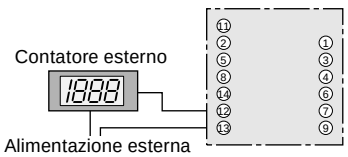


4 FILI CON 3 TC (4 FNE)



USCITA EMISSIONE IMPULSI

Opzione: 2da uscita morsetti 20 e 21

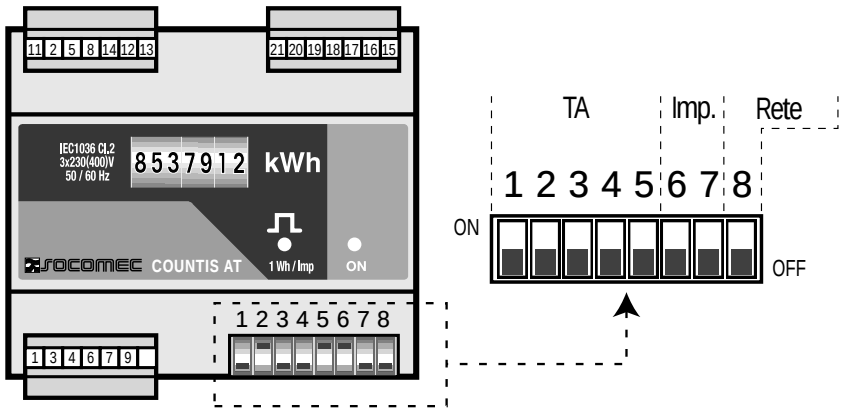


PROGRAMMAZIONE ⚠ apparecchio fuori tensione

Per un'utilizzazione corretta dell'apparecchio, occorre procedere alla configurazione. I microinterruttori sono disposti sotto una protezione grigia, sollevare servendosi di un cacciavite. La designazione dei microinterruttore é indicata qui di seguito:

Nota:
L'attivazione dei parametri si effettua fin dalla messa in tensione.

Nota:
Configurazione di fabbrica:
1-2-3-4-5-8 = OFF
6-7 = ON



Peso impulsi

Peso	**6**	**7**
100 Wh	OFF	OFF
1 kWh	ON	OFF
10 kWh	OFF	ON
100 kWh	ON	ON

Tipo di rete

Tipi	**8**
3 o 4 FNE	OFF
3 o 4 FE	ON

PORTATA DI TA

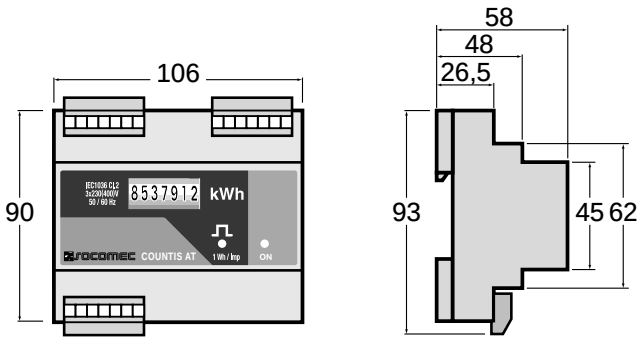
Portata di TA/5	**1**	**2**	**3**	**4**	**5**
10	OFF	OFF	OFF	OFF	OFF
20	ON	OFF	OFF	OFF	OFF
40	OFF	ON	OFF	OFF	OFF
50	ON	ON	OFF	OFF	OFF
60	OFF	OFF	ON	OFF	OFF
75	ON	OFF	ON	OFF	OFF
100	OFF	ON	ON	OFF	OFF
125	ON	ON	ON	OFF	OFF
150	OFF	OFF	OFF	ON	OFF
200	ON	OFF	OFF	ON	OFF
250	OFF	ON	OFF	ON	OFF
300	ON	ON	OFF	ON	OFF
400	OFF	OFF	ON	ON	OFF
500	ON	OFF	ON	ON	OFF
600	OFF	ON	ON	ON	OFF
750	ON	ON	ON	ON	OFF
800	OFF	OFF	OFF	OFF	ON
1000	ON	OFF	OFF	OFF	ON
1200	OFF	ON	OFF	OFF	ON
1250	ON	ON	OFF	OFF	ON
1500	OFF	OFF	ON	OFF	ON
1750	ON	OFF	ON	OFF	ON
2000	OFF	ON	ON	OFF	ON
2500	ON	ON	ON	OFF	ON
3000	OFF	OFF	OFF	ON	ON
4000	ON	OFF	OFF	ON	ON

ITALIANO

CARATTERISTICHE TECNICHE

SCATOLA

Allacciamento: a partire da morsettiere fisse da 0,5 a 6 mm²
Peso: gr. 300



PANNELLO FRONTALE

Visualizzatore:
- totalizzatore a rulli di 7 segmenti da 0 a 999999 KWh.
- precisione: ± 1 digit.

LED rosso (energia o raccordo dei TA) e verde (ON) dal diametro di 5 mm
Indice di protezione: IP 54

RETE

3 o 4 fili equilibrata o no.

INGRESSI CORRENTE

A partire da un trasformatore con un:
- primario configurabile tramite micro-interruttori: 10 - 20 … - 4000 A
- secondario: 5 A (1 A a richiesta)

Consumi ingressi: ≤ 0,4 VA
Campo di misura: da 1 A a 4800 A
Sovraccarico:
- permanente: 7 A
- intermittente: 10 A per 1 secondo

INGRESSI TENSIONE

Campi di misura:
- tra fase: da 90 a 500 V AC
- tra fase e neutro: da 51 a 289 V AC

Sovraccarico permanente: 289 V AC (fase / neutro)

CARATTERISTICHE TECNICHE

PRECISIONE

Energia attiva: IEC 1036 in classe 1 per l'ATi e in classe 2 per l'AT.

ALIMENTAZIONE AUSILIARIA

230 V o 400 AC, 50 / 60 Hz
Tolleranza: ± 15%
Consumi: 4 VA

USCITA IMPULSI

Relé Reed 1 T (100 V DC - 0,5 A - 10 VA)
Durata impulsi: 100 ms
Numero di manovre: 100 X 10^6 minimo
Peso impulsi programmabile tramite microinterruttori: 100 Wh / 1 KWh / 10 KWh / 100 KWh
Seconda uscita impulsi (opzione):
- collegata in parallelo sulla prima
- indipendente dalla prima (a richiesta)

ISOLAMENTO GALVANICO

Alimentazione ausiliaria: 2,5 KV AC per 1 minuto
Ingressi corrente: 2,5 KV AC per 1 minuto
Uscita impulsi: 2,5 KV AC per 1 minuto

CONDIZIONI DI UTILIZZAZIONE

Temperatura di funzionamento: da -10°C a +60°C
Temperatura di stoccaggio: da -20°C a +70°C
Umidità relativa: 95%

NORMA DI RIFERIMENTO

Relativa alla precisione sull'energia attiva:
- IEC 1036 in classe 1 per l'ATi e in classe 2 per l'AT.

Relativa ai marchi CE:
- En 50081-2
- En 50082-2
- IEC 1000-4-2/3-4-5-6-8-11

Relativa alle condizioni di utilizzazione:
- IEC 68-2-11/30

OPERACIONES PREVIAS

Para la seguridad del personal y del material, es indispensable conocer perfectamente el contenido de estas instrucciones antes de la puesta en marcha.
Al recibir el producto, es necesario verificar los puntos siguientes:

- Que el paquete está en buen estado;
- Que el producto no ha sufrido daños durante el transporte;
- Que la referencia del aparato corresponde a la del pedido;
- Que el embalaje contiene el producto así como las instrucciones de servicio.

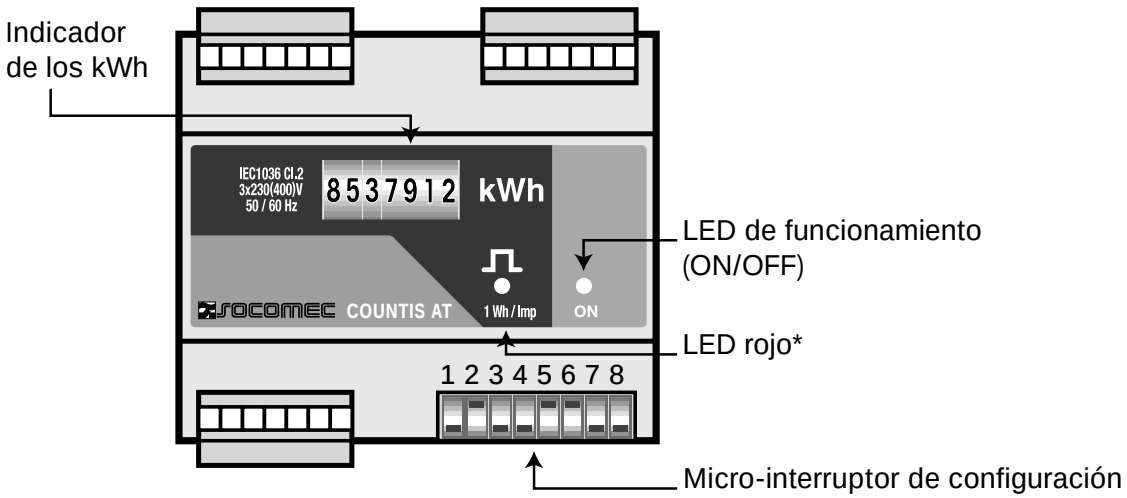
INFORMACIONES GENERALES

El sistema Countis se compone de varios productos para contar la energía en redes eléctricas BT 3 ó 4 cables equilibradas o no. Este sistema se compone de 2 productos:

- **El AT:** contador de energía Activa Trifásica **no aislada** que no permite el empalme del secundario de los TC a tierra.
- **El ATi:** contador de energía Activa Trifásica **aislada** que permite el empalme del secundario de los TC a tierra.

Estos productos son completamente configurables (relación de TC, tipo de red y peso de la salida impulsiones) y permiten, a partir de una representación visual de 7 dígitos, visualizar directamente el consumo en kWh. Disponen de manera standard de una salida impulsiones (2 en opción).

PRESENTACION



* parpadea o está apagado: energía (1 Wh/imp)
encendido: empalme defectuoso del secundario de los TC o inversión de la tensión / corriente

INSTALACION

El COUNTIS se instala en un carril DIN EN 50022 (DIN 43880)

Nota:
Existe un conjunto de fijaciones que permiten instalar el COUNTIS en la fachada de un armario. Consúltenos.

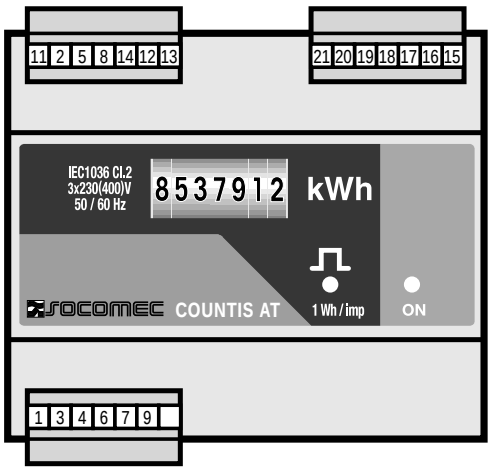
ENTORNO CLIMATICO

Para garantizar el mejor funcionamiento, se recomienda utilizar este aparato de -10 a 60°C con una humedad relativa entre 20 y 95%.

CONEXION

Se compone de 3 enchufes por bornas fijas (6 mm^2)

Recomendaciones:
Instalar a una distancia de por lo menos 30 cm de un aparato de desconexión (interruptor, conmutador,…)
Evitar la proximidad con sistemas que generen perturbaciones electro-magnéticas.
Evitar las vibraciones que impliquen aceleraciones superiores a 1 G para frecuencias inferiores a 60 Hz.



Nota:
El par de apretado mínimo para las bornas fijas es de 0,8 Nm.

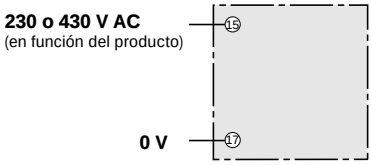
Recomendación:
Aconsejamos proteger la alimentación auxiliar y las entradas tensión a partir de fusibles de 0,5 A

CONSIGNAS DE SEGURIDAD (U.I.F)

Para evitar cualquier deterioro del aparato es necesario, antes de conectarlo, respetar lo siguiente:
- las instrucciones indicadas en la caja,
- la tensión de alimentación: 230 o 400 V AC con una tolerancia de ± 15%,
- la frecuencia de la red 50 o 60 Hz,
- una tensión máxima permanente en las bornas de las entradas tensión de 500 V AC fase/fase o de 289 V AC entre Fase/neutro,
- una corriente máxima permanente de 7 A (conexión a partir de transformador o transformadores de corriente).

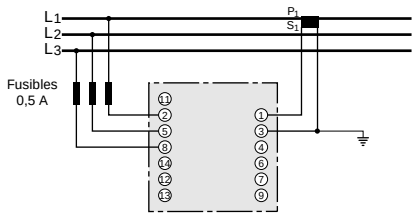
ESPAÑOL

ALIMENTACION AUXILIAR

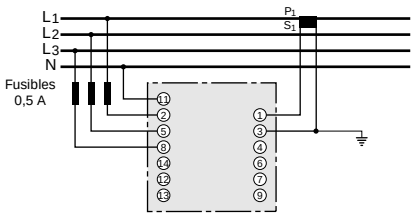


RED (Conexión a tierra de los TC, sólo para el ATi)

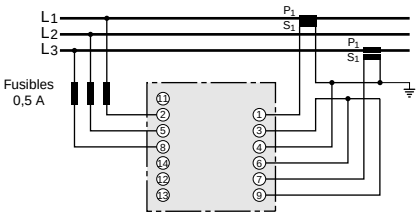
3 CABLES CON 1 TC (3 FE)



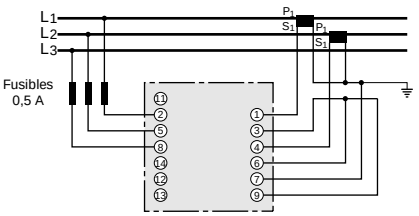
4 CABLES CON 1 TC (4 FE)



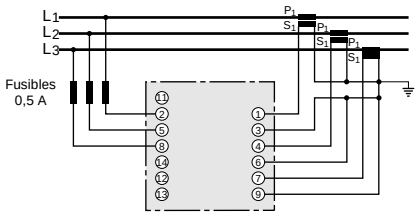
3 CABLES CON 2 TC (3 FNE)



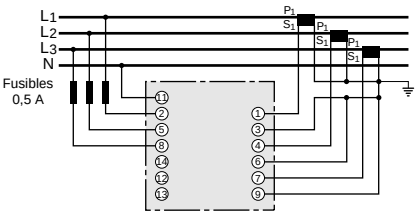
3 CABLES CON 2 TC (3 FNE)



3 CABLES CON 3 TC (3 FNE)

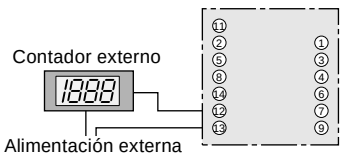


4 CABLES CON 3 TC (4 FNE)



SALIDA A EMISOR DE IMPULSIONES

Opción: segunda salida bornas 20 y 21



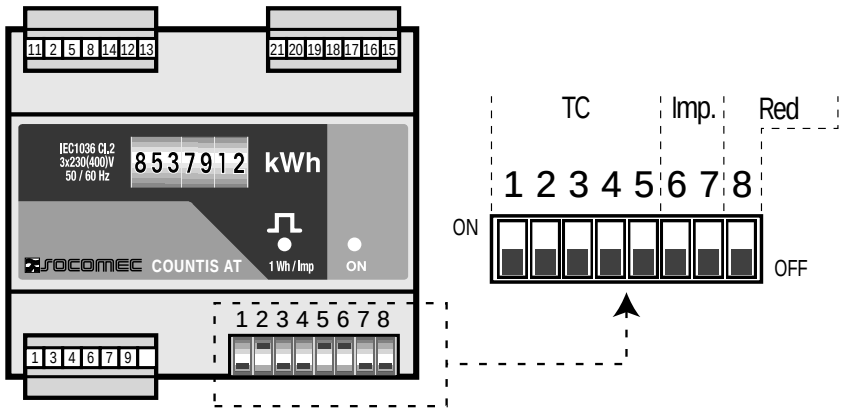
PROGRAMACION

⚠ Aparato fuera de tensión

Para explotar correctamente este producto, es indispensable configurarlo. Los micro-interruptores están dispuestos bajo una cubierta gris que es necesario levantar con un destornillador. La designación de estos micro-interruptores se indica más adelante.

Nota:
La validación de los parámetros se realiza desde que se pone en tensión.

Nota:
Configuración de fábrica:
1-2-3-4-5-8 = OFF
6-7 = ON



Peso de impulsiones

Peso	6	7
100 Wh	OFF	OFF
1 kWh	ON	OFF
10 kWh	OFF	ON
100 kWh	ON	ON

Tipos de red

Tipos	8
3 o 4 FNE	OFF
3 o 4 FE	ON

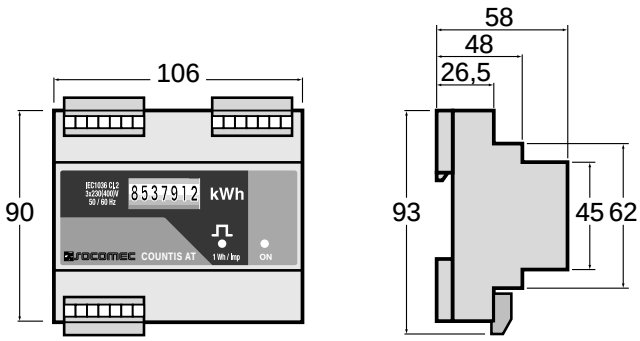
RELACIÓN DE TC

Relación de TC/5	1	2	3	4	5
10	OFF	OFF	OFF	OFF	OFF
20	ON	OFF	OFF	OFF	OFF
40	OFF	ON	OFF	OFF	OFF
50	ON	ON	OFF	OFF	OFF
60	OFF	OFF	ON	OFF	OFF
75	ON	OFF	ON	OFF	OFF
100	OFF	ON	ON	OFF	OFF
125	ON	ON	ON	OFF	OFF
150	OFF	OFF	OFF	ON	OFF
200	ON	OFF	OFF	ON	OFF
250	OFF	ON	OFF	ON	OFF
300	ON	ON	OFF	ON	OFF
400	OFF	OFF	ON	ON	OFF
500	ON	OFF	ON	ON	OFF
600	OFF	ON	ON	ON	OFF
750	ON	ON	ON	ON	OFF
800	OFF	OFF	OFF	OFF	ON
1000	ON	OFF	OFF	OFF	ON
1200	OFF	ON	OFF	OFF	ON
1250	ON	ON	OFF	OFF	ON
1500	OFF	OFF	ON	OFF	ON
1750	ON	OFF	ON	OFF	ON
2000	OFF	ON	ON	OFF	ON
2500	ON	ON	ON	OFF	ON
3000	OFF	OFF	OFF	ON	ON
4000	ON	OFF	OFF	ON	ON

CARACTERISTICAS TECNICAS

CAJA

Conexión: a partir de bornas fixas de 0,5 a 6 mm²
Peso: 300 grs



FACHADA

Visor:
- totalizador a rodillo de 7 segmentos de 0 a 9 999 999 kWh
- precisión: ± 1 Dígito

LED rojo (energía o conexión de los TC) y verde (ON) de diámetro 5 mm
Indice de protección: IP 54

RED

3 o 4 cables equilibrada o no.

ENTRADAS CORRIENTE

A partir de transformador con un:
- primario configurable por micro-interruptores:
- segundario: 5 A (1 A a pedido)

Consumo de las entradas:
Extensión de medida: 1A a 4800 A
Sobrecarga:
- permanente: 7 A
- intermitente: 10 A durante 1 segundo

ENTRADAS TENSION

Extensión de medida:
- entre fase: 90 a 500 V AC
- entre fase y neutro: 51 a 289 V AC

Sobrecarga permanente:289 V AC (fase/neutro)

CARACTERISTICAS TECNICAS

PRECISION

Energía activa: CEI 1036 en clase 1 para el ATi y en clase 2 para el AT

ALIMENTACION AUXILIAR

230 V o 400 V AC, 50/60 Hz
Tolerancia: ± 15%
Consumo: 4 VA

SALIDA IMPULSOS

Relé reed 1 T (100 V DC - 0,5 - 10 VA)
Duración de impulsiones: 100 ms
Número de maniobras: 100 x 10^6 mínimo
Peso de impulsiones programable por micro- interruptores:
2a salida impulsiones (opción):
• conectada en paralelo sobre la primera
• independiente de la primera (a pedido)

AISLAMIENTO GALVANICO

Alimentación auxiliar: 2,5 kV AC durante 1 minuto
Entradas corriente: 2,5 kV AC durante 1 minuto
Salida impulsiones: 2,5 kV AC durante 1 minuto

CONDICIONES DE USO

Temperatura de funcionamiento: -10 a +60°C
Temperatura de almacenamiento: -20 a +70°C
Humedad relativa: 95%

NORMAS

Relativa a la precisión sobre la energía activa:
• CEI 1036 en clase 1 para el ATi y en classe 2 para el AT
Relativas a las marcas CE:
• EN 50081-2
• EN 50082-2
• CEI 1000-4-2/ 3-4-5-6-8-11
Relativa a las condiciones de uso:
• CEI 68-2-11/30

OPERAÇÕES PRELIMINARES

Por razões de segurança tanto para o utilizador como para o material, é imperativo conhecer a fundo as presentes instruções antes de colocar em funcionamento.
Ao receber a embalagem, convém certificar-se dos seguintes aspectos:

- a embalagem está em bom estado;
- o produto não ficou danificado durante o transporte;
- a referência do aparelho coincide com a referência da encomenda;
- a embalagem contém o produto e respectivas instruções.

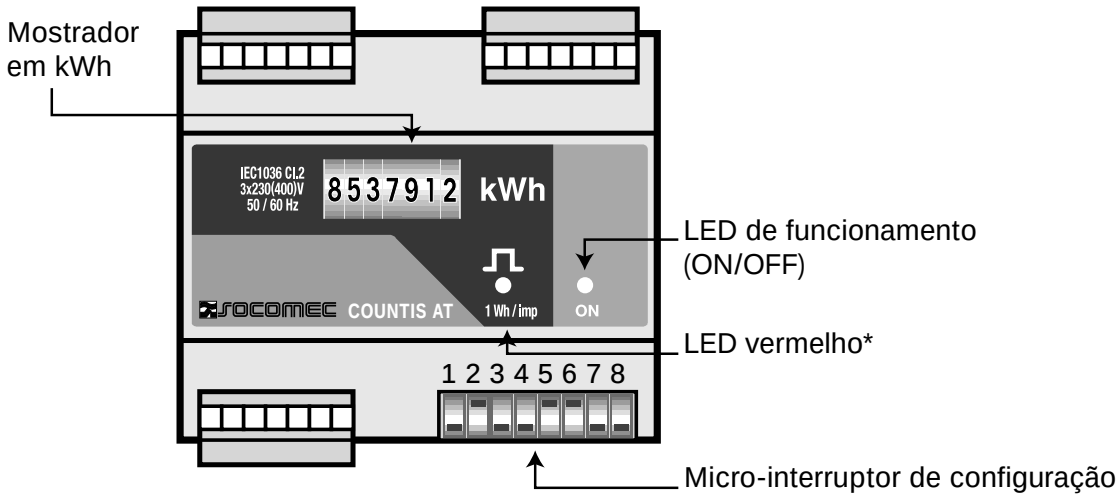
INFORMAÇÕES GERAIS

O sistema Countis compõe-se de vários produtos destinados à contagem da energia para redes eléctricas BT 3 ou de 4 fios equilibradas ou não. Este sistema é composto por 2 produtos:

- **o AT:** contador de energia Activa Trifásica **não isolado** que não permite a ligação do secundário dos TC à terra;
- **o ATi:** contador de energia Activa Trifásica **isolado** que permite a ligação do secundário dos TC à terra

Estes produtos são totalmente configuráveis (relação de TC, tipo de rede e carga da saída dos impulsos) e permitem, através de um mostrados de 7 dígitos, visualizar directamente o consumo em kWh. Estão equipados de origem de uma saída dos impulsos (2 em opção).

APRESENTAÇÃO



* a piscar ou apagado: energia (1 Wh/Imp)
aceso: ligação do secundário dos TC incorrecta ou inversão tensão / corrente

INSTALAÇÃO

O COUNTIS assentam-se sobre uma calha DIN EN 50022 (DIN 43880).

MEIO AMBIENTE

Nota:
Existe um conjunto de fixações que permite instalar o COUNTIS na fachada de um armário.
Consulte-nos para mais informações.

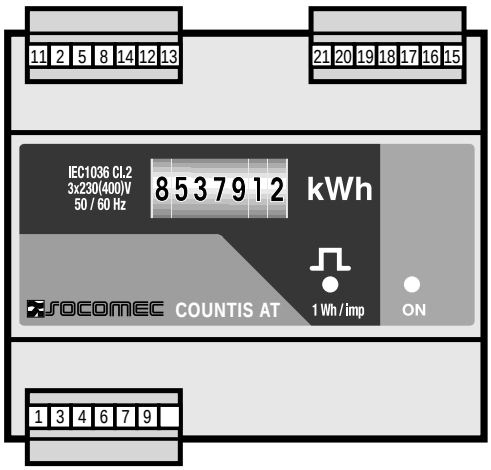
Para se garantir uma optimização do funcionamento, é recomendado usar este aparelho a uma temperatura ambiente entre -10°C e +60°C, com um teor de humidade relativa máximo compreendido entre 30 e 95%.

LIGAÇÃO

Recomendações:
Instalar a pelo menos 30 cm de distância em relação a um dispositivo de corte (interruptor, contactor, …).
Evitar a proximidade com sistemas gerando perturbações electromagnéticas
Não submeter os produtos a vibrações comportando acelerações superiores a 1 G para frequências inferiores a 60 Hz.

Composto por 3 caixas de bornes fixas (6 mm^2).

Nota:
0,8 Nm corresponde ao binário de aperto mínimo para a caixa de bornes fixa.



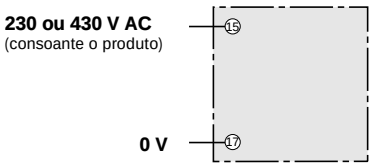
Recomendações:
Aconselhamos a protecção da alimentação auxiliar e das entradas de tensão a através de fusíveis de 0,5 A.

MEDIDAS DE SEGURANÇA (U.I.F.)

Para evitar qualquer deterioração do aparelho, antes de fazer a ligação é necessário zelar pelo cumprimento:

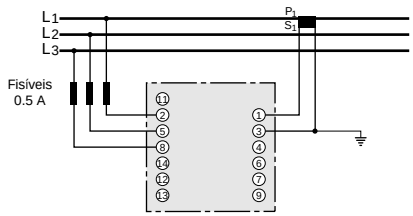
- das indicações da caixa envolvente;
- da tensão de alimentação: 230 V AC ou 400 V AC com uma tolerância de ± 15%
- da frequência da rede: 50 ou 60 Hz;
- da tensão máxima permanente nos bornes das entradas de tensão de 500 V AC fase/fase o de 289 V AC entre fase/neutro.
- Da corrente máxima permanente de 7 A (ligação a partir de transformador(es) de corrente).

ALIMENTAÇÃO AUXILIAR

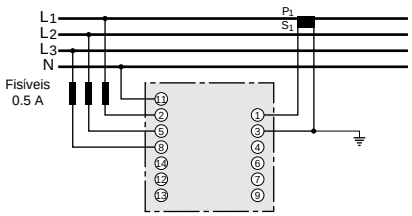


REDE (Ligação à terra dos TC, apenas no caso do ATi)

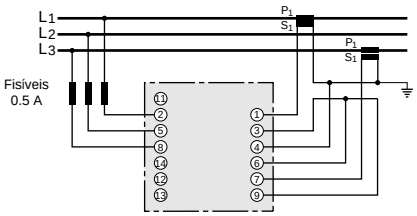
3 FIOS COM 1 TC (3 FE)



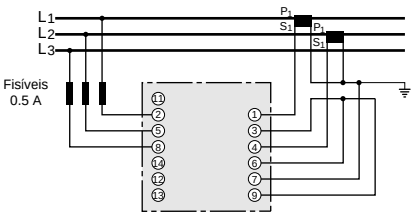
4 FIOS COM 1 TC (4 FE)



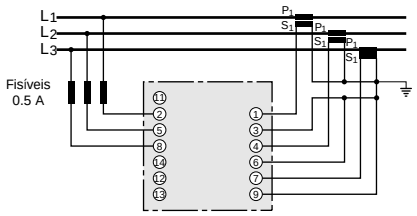
3 FIOS COM 2 TC (3 FNE)



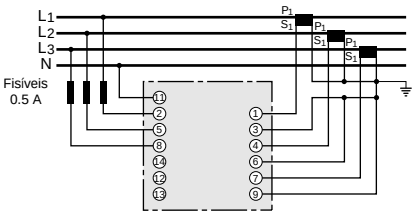
3 FIOS COM 2 TC (3 FNE)



3 FIOS COM 3 TC (3 FNE)

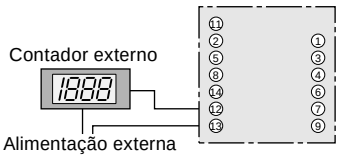


4 FIOS COM 3 TC (4 FNE)



LIGAÇÃO À SAÍDA DOS IMPULSOS

Opção: 2ª saída de bornes 20 e 21

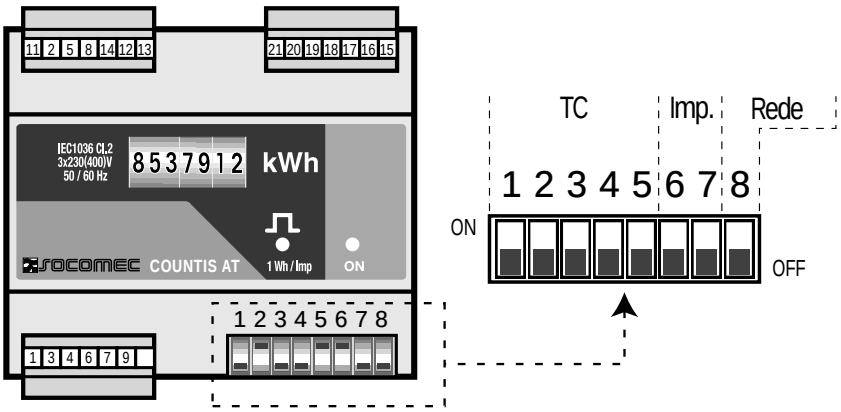


PROGRAMAÇÃO ⚠ aparelho desligado

Para um aproveitamento óptimo deste produto, é indispensável configurá-lo.
Os micro-interruptores encontram-se debaixo de uma protecção cinzenta que deve ser levantada com uma chave de fendas.
A designação destes micro-interruptores é a indicada mais abaixo.

Nota:
Os parâmetros são levados em consideração logo após a ligação.

Nota:
Configuração realizada na fábrica:
1-2-3-4-5-8 = OFF
6-7 = ON



Carga dos impulsos

Carga	6	7
100 Wh	OFF	OFF
1 kWh	ON	OFF
10 kWh	OFF	ON
100 kWh	ON	ON

Tipo de rede

Tipos	8
2 ou 4 FNE	OFF
2 ou 4 FE	ON

RELAÇÃO DE TC

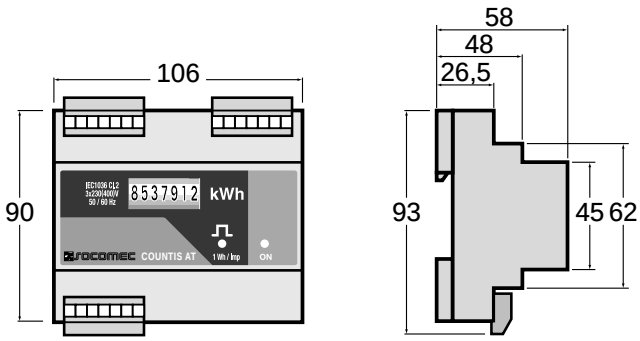
Relação de TC/5	1	2	3	4	5
10	OFF	OFF	OFF	OFF	OFF
20	ON	OFF	OFF	OFF	OFF
40	OFF	ON	OFF	OFF	OFF
50	ON	ON	OFF	OFF	OFF
60	OFF	OFF	ON	OFF	OFF
75	ON	OFF	ON	OFF	OFF
100	OFF	ON	ON	OFF	OFF
125	ON	ON	ON	OFF	OFF
150	OFF	OFF	OFF	ON	OFF
200	ON	OFF	OFF	ON	OFF
250	OFF	ON	OFF	ON	OFF
300	ON	ON	OFF	ON	OFF
400	OFF	OFF	ON	ON	OFF
500	ON	OFF	ON	ON	OFF
600	OFF	ON	ON	ON	OFF
750	ON	ON	ON	ON	OFF
800	OFF	OFF	OFF	OFF	ON
1000	ON	OFF	OFF	OFF	ON
1200	OFF	ON	OFF	OFF	ON
1250	ON	ON	OFF	OFF	ON
1500	OFF	OFF	ON	OFF	ON
1750	ON	OFF	ON	OFF	ON
2000	OFF	ON	ON	OFF	ON
2500	ON	ON	ON	OFF	ON
3000	OFF	OFF	OFF	ON	ON
4000	ON	OFF	OFF	ON	ON

PORTUGUÊS

CARACTERÍSTICAS TÉCNICAS

CAIXA ENVOLVENTE

Ligação: a partir de bornes fixos
de 0,5 a 6 mm²
Peso: 300 g.



PARTE DA FRENTE

Mostrador
- Totalizador de rolos de 7 segmentos de 0 a 9 999 999 kWh
- Nível de precisão: ±1 dígito

LED vermelho (energia ou ligação dos TC) e verde (ON) de 5 mm de diâmetro
Índice de protecção: IP 54

REDE

3 ou 4 fios equilibrados ou não.

ENTRADAS DE CORRENTE

A partir de um transformador com um:
- primário configurável por micro-interruptores: 10 - 20 ... - 4000 A
- secundário: 5 A (1 A por encomenda)

Consumo das entradas: £ 0,4 VA
Intervalo de medição: 1 A a 4800 A
Sobrecarga:
- permanente: 7 A
- Intermitente: 10 A durante 1 segundo

ENTRADAS DE TENSÃO

Intervalo de medição:
- entre fase: 90 a 500 V AC
- entre fase e neutro: 51 a 289 V AC

Sobrecarga permanente: 289 V AC (fase/neutro)

CARACTERÍSTICAS TÉCNICAS

NÍVEL DE PRECISÃO

Energia activa: CEI 1036 na classe 1 para o ATi e na classe 2 para o AT

ALIMENTAÇÃO AUXILIAR

230 V ou 400 V AC 50 / 60 Hz
Tolerância: ± 15%
Consumo: 4 VA

SAÍDA DOS IMPULSOS

Relé reed 1 T (100 V DC - 0,5 A - 10 VA)
Duração dos impulsos: 100 ms
Quantidade de manobras:
100 x 10^6 mínimo
Carga dos impulsos programável por micro-interruptores: 100 Wh / 1 kWh / 10 kWh / 100 kWh
2ª saída dos impulsos (opção):
- ligada em paralelo na primeira
- independente da primeira (por encomenda)

ISOLAMENTO GALVÂNICO

Alimentação auxiliar: 2,5 kV AC durante 1 minuto
Entrada da corrente: 2,5 kV AC durante 1 minuto
Saída dos impulsos: 2,5 kV AC durante 1 minuto

CONDIÇÕES DE UTILIZAÇÃO

Temperatura de funcionamento:
-10°C a +60°C
Temperatura de armazenamento:
-20°C a +70°C
Humidade relativa: 95%

NORMAS

Relativa ao nível de precisão sobre a energia activa:
- CEI 1036 na classe 1 para o ATi e na classe 2 para o AT

Relativa à marcação CE:
- EN 50081-2
- EN 50082-2
- CEI 1000-4-2/3-4-5-6-8-11

Relativa à condições de utilização:
- CEI 68-2-11/30

Référence : 870 503D - 01/2000

COUNT 31A

SIEGE SOCIAL ET USINES
HEAD OFFICE AND PLANTS

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Interrupteurs industriels et Onduleurs

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